

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claim 1 has been revised. Support for the revisions can be found in, e.g., Figs. 4 and 5, among other places. Claims 1-12, 14-17, 19 and 21-23 remain pending in the application.

Claim Objections

Claim 1 is objected to because of informalities. Claim 1 has been revised editorially to address the Examiner's concern. Withdrawal of the objection is respectfully requested.

Claim Rejections – 35 USC § 112

Claims 1-12, 14-17, 19 and 21-23 are rejected under 35 USC 112, second paragraph, as being indefinite. Claim 1 has been revised editorially to address this issue. Withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 USC § 102

Claims 1-4 are rejected under 35 USC 102(b) as being anticipated by Kawanaka et al. (WO 99/05516 and English translation US 6,599,406) with further evidence provided by Oura et al. (US 2006/0042942) and Neel et al. (US 6,743,635). Applicants respectfully traverse this rejection.

Claim 1 requires a disturbing-noise countermeasure electrode that includes i) a first exposed end located adjacent to a second end edge of a substrate, ii) a first main line portion extending from the first exposed end toward a first end edge of the substrate along a first longitudinal edge of the substrate, iii) a second main line portion extending from the first main line portion toward the second longitudinal edge of the substrate along the first end edge of the substrate, and iv) a third main line portion extending from the second main line portion toward the second end edge of the substrate along the second longitudinal edge of the substrate. Claim 1 further requires a reagent portion that is formed adjacent the first end edge of the substrate.

In one illustrative embodiment in Fig. 5, a disturbing-noise countermeasure electrode 22 includes i) a first exposed end 22Aa located adjacent to a second end edge 25A of a substrate 2, ii) a first main line portion extending from the first exposed end 22Aa toward a first end edge 25B of the substrate 2 along a first longitudinal edge of the substrate 2, iii) a second main line portion extending from the first main line portion toward the second longitudinal edge of the substrate 2 along the first end edge 25B of the substrate 2, and iv) a third main line portion extending from the second main line portion toward the second end edge 25A of the substrate 2 along the second longitudinal edge of the substrate 2. A reagent portion 23 is formed adjacent the first end edge 25B of the substrate 2.

This arrangement allows the disturbing-noise countermeasure electrode to function to help reduce disturbing noise such as static electricity effectively (see page 4, lines 8-14 of the specification).

Kawanaka et al. fail to disclose a third main line portion extending from the second main line portion toward the second end edge of the substrate along the second longitudinal edge of the substrate, as required by claim 1. The rejection refers to Fig. 6 of Kawanaka et al. and contends that in Fig. 6 “the terminal 146 is grounded via the electrodes 104 and 103 when the test strip is connected to the apparatus 131.” That is, the rejection combines the test strip 145 in Fig. 6 of Kawanaka et al. with the concentration measuring apparatus 131 in Fig. 4 and arrives at the invention of claim 1.

Applicants respectfully contend that the test strip 145 in Fig. 6 is merely an example showing that when an incorrect test strip 145 is connected to the concentration measuring apparatus 131, the apparatus 131 would not carry out a measurement. As clearly stated in Kawanaka et al., col. 12, lines 58-60, “[t]he component in the liquid test sample cannot be measured even if the test strip 145 . . . is set to the measuring apparatus 131.”

Specifically, col. 13, lines 1-54 of Kawanaka et al. provides:

“[T]he test strip 145 has a negative terminal 146 and the positive terminal 117. The negative terminal 146 is electrically connected to the type judgement electrode 104 and negative electrode 103 of the measuring apparatus 131 thereby to shortcircuit the type judgement electrode 104 and negative electrode 103. The positive terminal 117 is electrically connected to the positive electrode 102 of the measuring apparatus 131 . . .

“When the test strip 145 is set to the measuring apparatus 131, the type judgement electrode 104 and negative electrode 103 of the measuring apparatus 131 are electrically connected to the negative terminal 146 of the test strip 145. Consequently the type judgement electrode 104 and negative electrode 103 of the measuring apparatus 131 are shortcircuited, and the positive electrode 102 of the measuring apparatus 131 and positive terminal 117 of the test strip 145 are electrically connected with each other
...

“After the complete setting of the test strip 145, the CPU 134 executes the . . . operations. Since the type judgement electrode 104 and negative electrode 103 of the concentration measuring apparatus 131 are shortcircuited, and the switch 132 at the input of the amplifier 105 is kept OFF in the first and third operations, the digital values D5, D7 output from the A/D converter 107 do not change. However, the switch 132 is brought into the ON state when the CPU 134 performs the second operation, and the type judgement electrode 104 and negative electrode 103 of the measuring apparatus 131 are shortcircuited and grounded, whereby the input of the amplifier 105 is grounded. As a result, the digital value D6 sent from the A/D converter 107 in the second operation becomes different from the digital values D5, D7.

“The CPU 134 judges from the fact that all of the digital values D5-D7 are not equal that the test strip 145 is one not equipped with the reaction reagent 142 measurable by the measuring apparatus 131, not carrying out the component measurement” (emphasis added).

Therefore, Applicants submit that the test strip 145 in Fig. 6 of Kawanaka et al. is not combinable with the concentration measuring apparatus 131 of Fig. 4.

Nor do Kawanaka et al. disclose a reagent portion formed on a substrate adjacent a first end edge of the substrate, as required by claim 1. Instead, Fig. 6 of Kawanaka et al. merely illustrates a reagent portion 147 being located away from the end to be connected to the concentration measuring apparatus 131 (the right end of the test strip 145 in Fig. 6). This is completely distinct from the invention of claim 1, which requires a reagent portion formed on a substrate adjacent a first end edge of the substrate.

Oura et al. and Neel et al. do not remedy the deficiencies of Kawanaka et al. For at least these reasons, claim 1 is patentable over Kawanaka et al. with further evidence provided by Oura et al. and Neel et al. Claims 2-4 depend ultimately from claim 1 and are patentable along with claim 1 and need not be separately distinguished at this time.

Applicants are not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claims 11-12 and 14-17 are rejected under 35 USC 102(b) as being anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Kawanaka et al. (WO 99/05516 and English translation US 6,599,406) with further evidence provided by Oura et al. (US 2006/0042942) and Neel et al. (US 6,743,635). Applicants respectfully traverse this rejection. Claim 11-12 and 14-17 depend ultimately from claim 1 and are patentable over Kawanaka et al. with further evidence provided by Oura et al. and Neel et al. for at least the same reasons discussed above regarding claims 1-4. Applicants are not conceding the relevance of the rejection to the remaining features of the rejected claims.

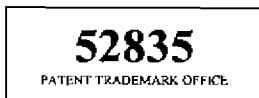
Claim Rejections – 35 USC § 103

Claims 5-10 are rejected under 35 USC 103(a) as being unpatentable over Kawanaka et al. (WO 99/05516 and English translation US 6,599,406) in view of Neel et al. (US 6,743,635) with further evidence provided by Oura et al. (US 2006/0042942). Applicants respectfully traverse this rejection. Claims 5-10 depend ultimately from claim 1 and are patentable over Kawanaka et al. in view of Neel et al. with further evidence provided by Oura et al. for at least the same reasons discussed above regarding claims 1-4. Applicants are not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claim 19 is rejected under 35 USC 103(a) as being unpatentable over Kawanaka et al. (WO 99/05516 and English translation US 6,599,406) in view of White et al. (US 5,438,271) with further evidence provided by Oura et al. (US 2006/0042942) and Neel et al. (US 6,743,635). Applicants respectfully traverse this rejection. Claim 19 depends from claim 1 and is patentable over Kawanaka et al. in view of White et al. with further evidence provided by Oura et al. and Neel et al. for at least the same reasons discussed above regarding claims 1-4. White et al. do not remedy the deficiencies of Kawanaka et al., Oura et al. and Neel et al. Applicants are not conceding the relevance of the rejection to the remaining features of the rejected claim.

Claim 21-23 are rejected under 35 USC 103(a) as being unpatentable over Kawanaka et al. (WO 99/05516 and English translation US 6,599,406) in view of Rappin et al. (US 6,572,745) with further evidence provided by Oura et al. (US 2006/0042942) and Neel et al. (US 6,743,635). Applicants respectfully traverse this rejection. Claims 21-23 depend ultimately from claim 1 and are patentable over Kawanaka et al. in view of Rappin et al. with further evidence provided by Oura et al. and Neel et al. for at least the same reasons discussed above regarding claims 1-4. Rappin et al. do not remedy the deficiencies of Kawanaka et al., Oura et al. and Neel et al. Applicants are not conceding the relevance of the rejection to the remaining features of the rejected claims.

In view of the above, favorable reconsideration in the form of a notice of allowance is respectfully requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3804.



Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

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By: 

Douglas P. Mueller
Reg. No. 30,300
DPM/cy